

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Previously presented) A method for increasing the throughput of network communications comprising:

receiving a request for a requested object from a requester, wherein the requester is a web browser

forwarding the request to a server

receiving a response from the server

reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

computing a computed expiration for the response

inserting the computed expiration into the response creating an amended response

forwarding the amended response to the requester, wherein the amended response includes the requested object

storing the amended response

providing the amended response to other requesters that request the requested object, the providing achieved without additional communication with the server.

- 2. (Original) The method of claim 1 wherein the server comprises an origin server.
- **3.** (Cancelled)



- 4. (Original) The method of claim 1 wherein when the response includes the native expiration, forwarding the response to the requester.
- **5.** (Original) The method of claim 1 wherein the computed expiration is based on at least one of a response content type and a response resource identifier.
- **6.** (Original) The method of claim 1 wherein the computed expiration is based on a time-to-live.
- 7. (Original) The method of claim 1 further comprising
  evaluating whether a content type of the response is appropriate
  performing the reviewing only when the content type of the response is
  appropriate.
- **8.** (Original) The method of claim 7 wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list.
- **9.** (Original) The method of claim 8 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), executable program, audio, video, and multimedia.
- **10.** (Previously presented) The method of claim 1 wherein the receiving a request comprises storing request information as request history data.
- 11. (Original) The method of claim 10 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.



**12.** (Original) The method of claim 10 wherein the computing the computed expiration comprises:

evaluating whether the response includes a modification history when the response includes the modification history,

computing a time-to-live for the response based on an age factor, a current time and a value of the modification history

computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history,

retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

computing the time-to-live for the response based on an age factor, a current time and the modification query value,

computing the computed expiration based on the current time and the time-to-live

when the retrieving the modification query value is not successful, forwarding the response to the requester.

## **13.** (Original) The method of claim 12 further comprising:

when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum

when the time-to-live is less than a defined minimum, forwarding the response to the requester.



- **14.** (Original) The method of claim 13 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.
- **15.** (Previously presented) A method for increasing the throughput of network communications comprising:

receiving a request for a requested object from a requester, wherein the requester is a web browser

forwarding the request to a server receiving a response from the server evaluating whether the response has a status code that is actionable when the status code is actionable,

reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration
calculating a calculated expiration for the response
inserting the calculated expiration into the response creating an
amended response

forwarding the amended response to the requester, wherein the amended response includes the requested object

storing the amended response

providing the amended response to other requesters that request the requested object, the providing achieved without additional communication with the server

when the response includes the native expiration, forwarding the response to the requester

when the status code is not actionable, forwarding the response to the requester.

- **16.** (Original) The method of claim 15 wherein evaluating whether the response has a status code that is actionable comprises checking to determine whether the response has a hyper-text transfer protocol (HTTP) status code of "OK" or "Not Modified".
- 17. (Cancelled)
- **18.** (Previously presented) A method for increasing the throughput of network communications comprising:

receiving a request for a requested object from a requester, wherein the requester is a web browser

forwarding the request to a server

receiving a response from the server

reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

evaluating whether a content type of the response is appropriate

when the content type of the response is appropriate

computing a calculated expiration for the response

inserting the calculated expiration into the response creating an

amended response

forwarding the amended response to the requester, wherein the amended response includes the requested object

storing the amended response

providing the amended response to other requesters that request the

requested object, the providing achieved without additional

communication with the server

when the content type of the response is not appropriate,

forwarding the response to the requester when the response includes the native expiration, forwarding the response to the requester.

- **19.** (Original) The method of claim 18 wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is a graphic image.
- **20.** (Original) The method of claim 19 wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is one of a Graphics Interchange Format (GIF) file or Joint Photographic Experts Group (JPEG) file.
- **21.** (Original) The method of claim 18 wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list.
- **22.** (Original) The method of claim 21 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), audio, video, and multimedia.
- **23.** (Original) The method of claim 18 wherein the calculated expiration is based on at least one of a response content type and a response resource identifier.
- **24.** (Original) The method of claim 18 wherein the calculated expiration is based on a time-to-live.
- **25.** (Cancelled)
- **26.** (Previously presented) The method of claim 18 wherein the receiving a request comprises storing request information as request history data.

- **27.** (Original) The method of claim 26 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.
- **28.** (Original) The method of claim 26 wherein the calculating the calculated expiration comprises:

evaluating whether the response includes a modification history when the response includes the modification history,

computing a time-to-live for the response based on an age factor, a current time and a value of the modification history

calculating the calculated expiration based on the current time and the time-to-live

when the response does not include the modification history,

retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

computing the time-to-live for the response based on an age factor, a current time and the modification query value,

calculating the calculated expiration based on the current time and the time-to-live

when the retrieving the modification query value is not successful, forwarding the response to the requester.

**29.** (Original) The method of claim 28 further comprising:

when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum



when the time-to-live is less than a defined minimum, forwarding the response to the requester.

- **30.** (Original) The method of claim 28 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.
- **31.** (Previously presented) A storage medium having instructions stored thereon which when executed by a processor cause the processor to perform operations comprising:

receiving a request for a requested object from a requester, wherein the requester is a web browser

forwarding the request to a server

receiving a response from the server

reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

computing a computed expiration for the response

inserting the computed expiration into the response creating an amended response

forwarding the amended response to the requester, wherein the amended response includes the requested object

storing the amended response

providing the amended response to other requesters that request the requested object, the providing achieved without additional communication with the server.

**32.** (Original) The storage medium of claim 31 wherein the server comprises an origin server.

**33.** (Original) The storage medium of claim 31 having further instructions which when executed cause the processor to perform further operations comprising:

evaluating whether a content type of the response is appropriate performing the reviewing only when the content type of the response is appropriate.

- **34.** (Original) The storage medium of claim 33 wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list.
- **35.** (Original) The storage medium of claim 34 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), audio, video, and multimedia.
- 36. (Cancelled)
- **37.** (Original) The storage medium of claim 31 wherein when the response includes the native expiration, forwarding the response to the requester.
- **38.** (Original) The storage medium of claim 31 wherein the computed expiration is based on at least one of a response content type and a response resource identifier.
- **39.** (Original) The storage medium of claim 31 wherein the computed expiration is based on a time-to-live.
- **40.** (Previously presented) The storage medium of claim 31 wherein the receiving a request comprises storing request information as request history data.

- **41.** (Original) The storage medium of claim 40 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.
- **42.** (Original) The storage medium of claim 40 wherein the computing the computed expiration comprises:

evaluating whether the response includes a modification history when the response includes the modification history,

computing a time-to-live for the response based on an age factor, a current time and a value of the modification history

computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history,

retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

computing the time-to-live for the response based on an age factor, a current time and the modification query value,

computing the computed expiration based on the current time and the time-to-live

when the retrieving the modification query value is not successful, forwarding the response to the requester.

**43.** (Original) The storage medium of claim 42 having further instructions stored thereon which when executed cause the processor to perform operations further comprising:

when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum

when the time-to-live is less than a defined minimum, forwarding the response to the requester.

- **44.** (Original) The storage medium of claim 43 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.
- **45.** (Previously presented) A computing device configured to accelerate network traffic delivery, the computing device comprising:
  - a processor
  - a memory coupled with the processor
- a storage medium having instructions stored thereon which when executed cause the computing device to perform actions comprising

receiving a request for a requested object from a requester, wherein the requester is a web browser

forwarding the request to a server

receiving a response from the server

reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

computing a computed expiration for the response

inserting the computed expiration into the response creating an amended response

forwarding the amended response to the requester, wherein the amended response includes the requested object

storing the amended response

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providing the amended response to other requesters that request the requested object, the providing achieved without additional communication with the server.

- **46.** (Original) The computing device of claim 45 wherein the server comprises an origin server.
- **47.** (Original) The computing device of claim 45 having further instructions which when executed cause the processor to perform further operations comprising:

evaluating whether a content type of the response is appropriate performing the reviewing only when the content type of the response is appropriate.

- **48.** (Original) The computing device of claim 47 wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list.
- **49.** (Original) The computing device of claim 48 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), audio, video, and multimedia.
- **50.** (Cancelled)
- **51.** (Original) The computing device of claim 45 wherein when the response includes the native expiration, forwarding the response to the requester.
- **52.** (Original) The computing device of claim 45 wherein the computed expiration is based on at least one of a response content type and a response resource identifier.



- **53.** (Original) The computing device of claim 45 wherein the computed expiration is based on a time-to-live.
- **54.** (Previously presented) The computing device of claim 45 wherein the receiving a request comprises storing request information as request history data.
- **55.** (Original) The computing device of claim 54 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.
- **56.** (Original) The computing device of claim 54 wherein the computing the computed expiration comprises:

evaluating whether the response includes a modification history when the response includes the modification history,

computing a time-to-live for the response based on an age factor, a current time and a value of the modification history

computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history,

retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

computing the time-to-live for the response based on an age factor, a current time and the modification query value,

computing the computed expiration based on the current time and the time-to-live



when the retrieving the modification query value is not successful, forwarding the response to the requester.

**57.** (Original) The computing device of claim 56 wherein the storage medium has further instructions stored thereon which when executed cause the computing device to perform further operations comprising:

when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum

when the time-to-live is less than a defined minimum, forwarding the response to the requester.

**58.** (Original) The computing device of claim 57 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.